

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-3. (Cancelled)

4. (Previously Presented) An image-sensing device comprising:
an image sensor including:

a photoelectric conversion portion that outputs an analog electric signal
natural-logarithmically proportional to an amount of incident light, and

an output circuit that includes a temperature sensor and that corrects the
analog electric signal output from the photoelectric conversion portion on a basis of
ambient temperature detected by the temperature sensor, wherein the temperature sensor is
positioned in the image sensor,

wherein the output circuit generates a factor that varies with the ambient
temperature inside the image-sensing device as detected by the temperature sensor, and
multiplies an output from the photoelectric conversion portion by the factor,

wherein the factor becomes lower as the ambient temperature inside the image-
sensing device becomes higher,

wherein the output circuit comprises:

a differential amplifier circuit that receives at a non-inverting input terminal
thereof a direct-current voltage; and

a voltage division circuit composed of two resistors connected in series, of
which one resistor has one end connected to an output terminal of the differential amplifier
circuit, and of which the other resistor receives at one end the electric signal output from
the photoelectric conversion portion, a node between the two resistors being connected to
an inverting input terminal of the differential amplifier circuit,

wherein one of the two resistors constituting the voltage division circuit is a temperature-sensitive resistor that serves as the temperature sensor.

5. (Previously Presented) An image-sensing device comprising:
an image sensor including:

a photoelectric conversion portion that outputs an analog electric signal natural-logarithmically proportional to an amount of incident light, and

an output circuit that includes a temperature sensor and that corrects the analog electric signal output from the photoelectric conversion portion on a basis of ambient temperature detected by the temperature sensor, wherein the temperature sensor is positioned in the image sensor,

wherein the output circuit generates a factor that varies with the ambient temperature inside the image-sensing device as detected by the temperature sensor, and multiplies an output from the photoelectric conversion portion by the factor,

wherein the factor becomes lower as the ambient temperature inside the image-sensing device becomes higher,

wherein the output circuit comprises:

a differential amplifier circuit;

a first voltage division circuit composed of two resistors connected in series, of which one resistor receives at one end a direct-current voltage, and of which the other resistor receives at one end the electric signal output from the photoelectric conversion portion, a node between these two resistors being connected to a non-inverting input terminal of the differential amplifier circuit; and

a second voltage division circuit composed of two resistors connected in series, of which one resistor has one end connected to an output terminal of the differential amplifier circuit, and of which the other resistor receives at one end a direct-current voltage, a node between these two resistors being connected to an inverting input terminal of the differential amplifier circuit;

wherein one of the two resistors constituting the first voltage division circuit is a temperature-sensitive resistor that serves as the temperature sensor, and one of the two

resistors constituting the second voltage division circuit is a temperature-sensitive resistor that serves as the temperature sensor.

6. (Previously Presented) An image-sensing device comprising:
an image sensor including:

a photoelectric conversion portion that outputs an analog electric signal natural-logarithmically proportional to an amount of incident light, and

an output circuit that includes a temperature sensor and that corrects the analog electric signal output from the photoelectric conversion portion on a basis of ambient temperature detected by the temperature sensor, wherein the temperature sensor is positioned in the image sensor,

wherein the output circuit generates a factor that varies with the ambient temperature inside the image-sensing device as detected by the temperature sensor, and multiplies an output from the photoelectric conversion portion by the factor,

wherein the factor becomes lower as the ambient temperature inside the image-sensing device becomes higher,

wherein the output circuit comprises:

a differential amplifier circuit that receives at a non-inverting input terminal thereof the electric signal output from the photoelectric conversion portion; and

a voltage division circuit composed of two resistors connected in series, of which one resistor has one end connected to an output terminal of the differential amplifier circuit, and of which the other resistor receives at one end a direct-current voltage, a node between the two resistors being connected to the inverting input terminal of the differential amplifier circuit,

wherein one of the two resistors constituting the voltage division circuit is a temperature-sensitive resistor that serves as the temperature sensor.

- 7-9. (Cancelled)

10. (Previously presented) An image-sensing device comprising:
a plurality of pixels that output a plurality of color signals proportional to amounts of light received in different color ranges;
an initial state setting portion that corrects the plurality of color signals output from each pixel in such a way that the color signals have a specific correlation with one another at a given color temperature;
a color temperature detection portion that detects a color temperature of a subject to be sensed; and
a white balance adjustment portion that further corrects the plurality of color signals already corrected by the initial state setting portion in such a way that the color signals have the specific correlation with one another at the color temperature detected by the color temperature detection portion.

11. (Original) An image-sensing device as claimed in claim 10,
wherein the initial state setting portion adds, to the color signals, first offset values that are set separately for the individual color signals beforehand.

12. (Original) An image-sensing device as claimed in claim 11,
wherein the white balance adjustment portion adds, to the color signals already corrected by the initial state setting portion, second offset values that are set separately for the individual color signals on a basis of the color temperature detected by the color temperature detection portion.

13. (Original) An image-sensing device as claimed in claim 10,
wherein the specific correlation requires that all the color signals have equal signal levels at identical illuminance.

14. (Original) An image-sensing device as claimed in claim 10,
wherein the color temperature detection portion uses as a reference signal one of the plurality of color signals and detects a difference in signal level of each of the remaining color signals from the reference signal.

15. (Original) An image-sensing device as claimed in claim 10,
wherein the color temperature detection portion detects a color temperature by
integrating the color signals output from the plurality of pixels.

16. (Original) An image-sensing device as claimed in claim 10,
wherein the pixels each comprise:
a photosensor that outputs an electric signal proportional to an amount of
incident light; and
a transistor that is connected in series with the photosensor and that
operates in a subthreshold region so as to convert the electric signal output from the
photosensor into a signal logarithmically proportional to the amount of incident light.

17. (Cancelled)

18. (New) An image-sensing device comprising:
a plurality of pixels for outputting a plurality of color signals natural-
logarithmically proportional to amounts of light received in different color ranges, said
plurality of color signals including a red signal, green signal and blue signal;
an initial state setting portion for correcting the plurality of color signals output
from each pixel according to a specific correlation among the color signals at an intensity
of illumination;
a detecting portion for respectively detecting each signal level of first and second
color signals of the plurality of color signals relative to a signal level of a third color signal
selected from the plurality of color signals as a reference signal; and
a white balance adjustment portion for further correcting the plurality of color
signals already corrected by the initial state setting portion according to the specific
correlation among the color signals on the basis of the detection of the signal levels.

19. (New) An image-sensing device according to claim 18, wherein the first
color signal is the red signal, the second color signal is the blue signal and the third color
signal is the green signal.

20. (New) An image-sensing device comprising:
a plurality of pixels for outputting a plurality of color signals natural-logarithmically proportional to amounts of light received in different color ranges;
an initial state setting portion for correcting the plurality of color signals output from each pixel according to a specific correlation among the color signals at an intensity of illumination;
a detecting portion for detecting a signal level of at least one color signal of the plurality of color signals relative to a signal level of another color signal selected from the plurality of color signals as a reference signal; and
a white balance adjustment portion for further correcting the plurality of color signals already corrected by the initial state setting portion according to the specific correlation among the color signals on the basis of the detection of the signal level.

21. (New) An image-sensing device comprising:
a plurality of pixels for outputting a plurality of color signals natural-logarithmically proportional to amounts of light received in different color ranges;
an initial state setting portion for correcting the plurality of color signals output from each pixel according to a specific correlation among the color signals at an intensity of illumination;
a signal level detecting portion that comprises a plurality of integrator circuits and comparator circuits, wherein the integrator circuits are for integrating the color signals output from each pixel and the comparator circuits are for detecting a signal level of at least one color signal of the integrated color signals relative to a signal level of another color signal selected from the integrated color signals as a reference signal; and
a white balance adjustment portion for further correcting the plurality of color signals already corrected by the initial state setting portion according to the specific correlation among the color signals on the basis of the detection of the signal level.